



Bismarck By-Pass Proposal

November 12, 2013

Presenters

Mayor Warford

Mayor Johnston

Commissioner Seminary

Carl Hokenstad

Attendance: Bill Wocken, Keith Hunke, Mel Bullinger, Jeff Heintz

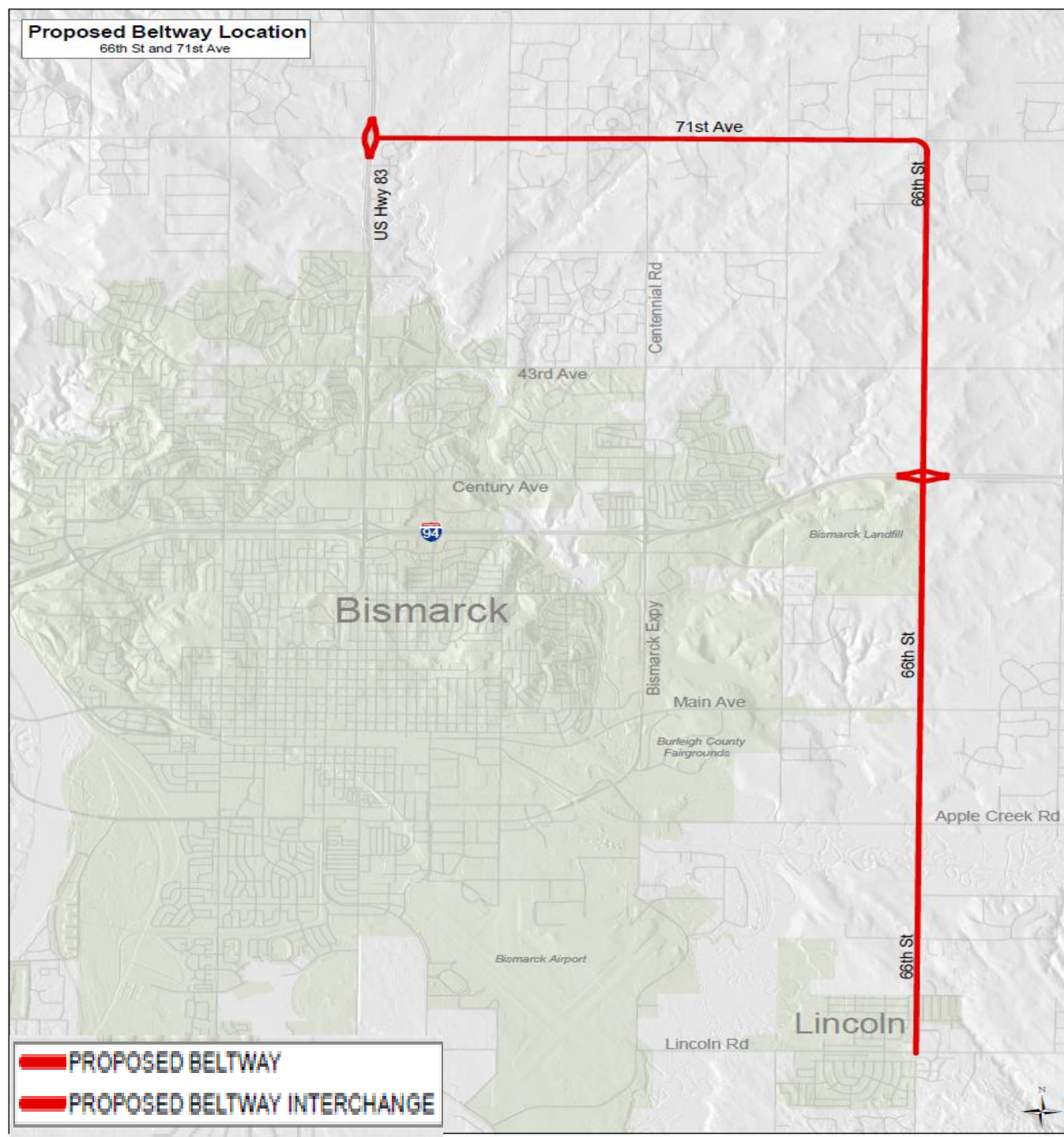


Proposal

The proposal for a bypass around the east and north sides of Bismarck should be favorably considered at this time. The proposed project diverts traffic not wishing to travel through Bismarck to a rural bypass. The investment in this bypass will allow existing expensive capacity in US 83 to be utilized for in-city trips. It promotes safety and economy as well as long range transportation objectives.

Over the past five years traffic congestion on major routes has risen to an alarming level. Unless addressed immediately, this impact will strangle the transportation capacity of through routes and local carriers so that a system-wide failure is likely. This kind of gridlock cannot be allowed. Present traffic congestion and growing safety concerns for traffic on State Street and Centennial Road make development of a bypass around the city an immediate priority.

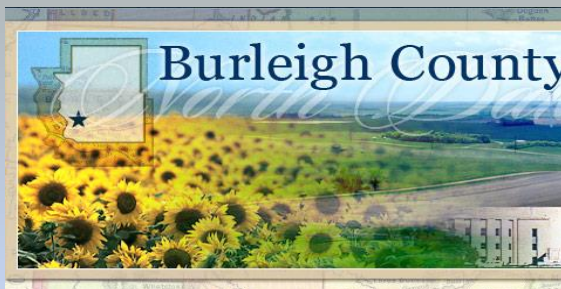
Project map



City of Lincoln



Stakeholders



**North Dakota
Trucking
Industry**



Project Overview

Purpose of the Project

- Improve traffic flow and safety on US 83, Centennial Road and other congested routes
- Provide truck traffic with an efficient, truck-friendly bypass around the city
- Alleviate the current need for added capacity improvements in the US 83 corridor as well as East Bismarck Expressway and Centennial Road
- Provide for better connectivity between US 83 and I-94.
- Provide a safe travel route around Bismarck for those not visiting the city

Need for the Project

Road Capacity

- Divert traffic around city for more efficient movements
- Preserve capacity in existing US 83 and Centennial Road infrastructure
- Lessen delay for through movements
- Reduce congestion on State Street and Centennial Road
- Provide for future increases in truck traffic

Need for the Project

Safe Travel

- Reduce truck–automobile conflicts specifically on State Street and Centennial Road
- Lessen signalized intersection operational problems
- Lessen overloading of turning queues
- Resolve truck speed concerns in congested areas



Need for the Project

Socio-economic Impacts

- Preserve expensive pavement and roadway infrastructure in place
- More efficient use of local roads
- Lessen over-the-road traveler influences on community
- Less divergence of trips from arterial to non-arterial routes

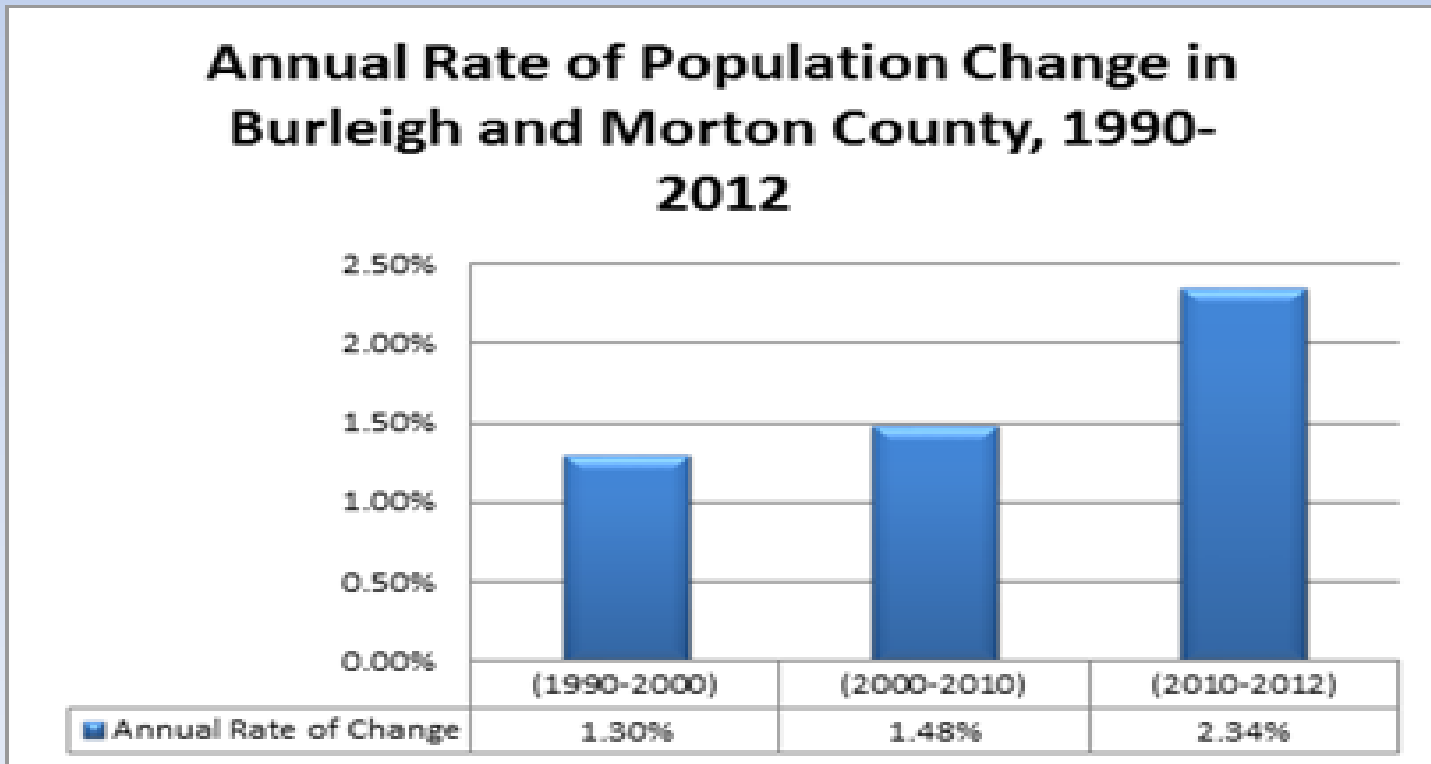
Related Transportation Studies

- Long Range Transportation Plan, 2001
- Long Range Transportation Plan, 2005
- Long Range Transportation Plan, 2010
- I-94, Exit 161 Operational Analysis, 2009
- North-South Beltway Corridor Study, 2009
- 71st Avenue/Centennial Road Corridor Study, 2007
- US 83 Corridor Transportation Study, 2006
- Lincoln to Bismarck Roadway Connection, 2006
- Regional Future Land Use Plan, 2007
- I-94 Corridor Study - *currently in progress*

Summary of Recent Growth Trends

POPULATION

Annual Rate of Population Change in Burleigh and Morton County, 1990-2012



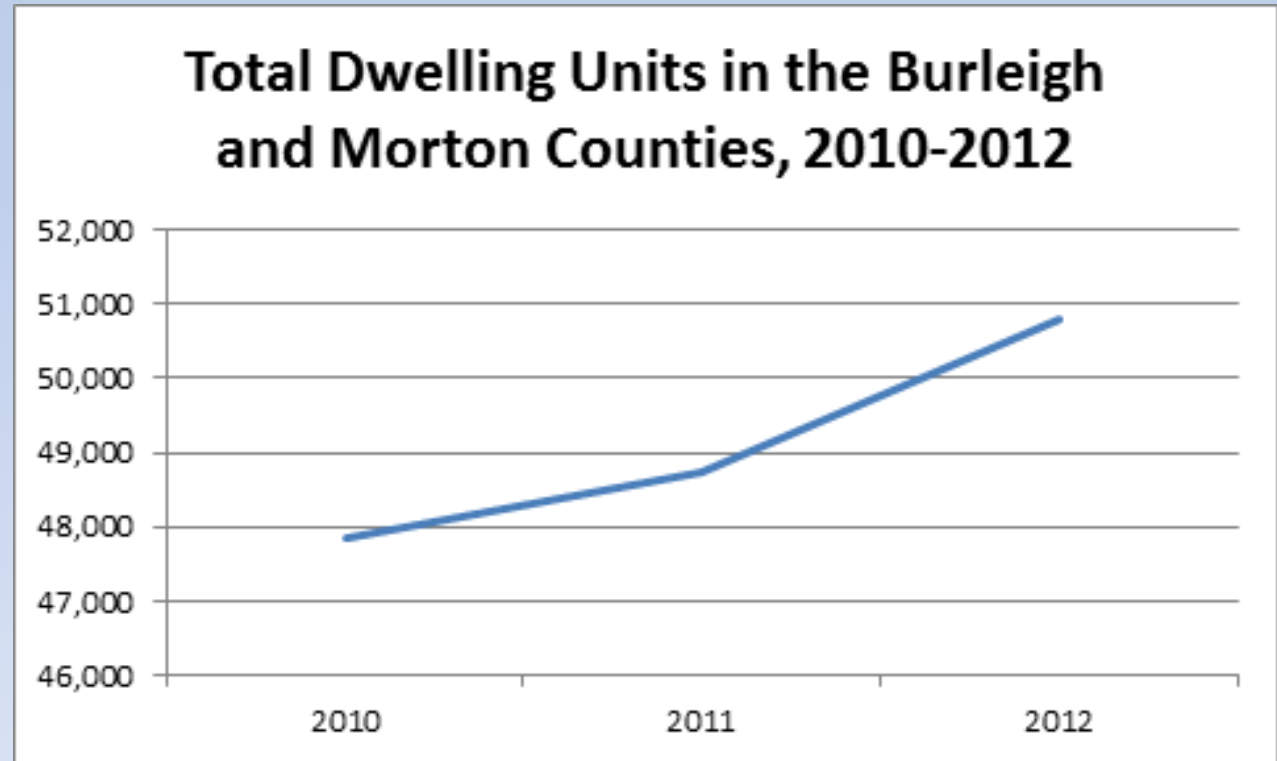
Metropolitan Statistical Area (MSA) 1990	MSA 2000	Annual Rate of Change (1990-2000)	MSA 2010	Annual Rate of Change (2000-2010)	MSA 2012	Annual Rate of Change (2010-2012)
83,831	94,719	1.30%	108,779	1.48%	113,875	2.34%

Based on population estimates from the US Census Bureau (1990, 2000, 2010, and 2012) Bismarck-Mandan MPO

Summary of Recent Growth Trends

HOUSING

Burleigh and Morton County Total Dwelling Units 2010-2012



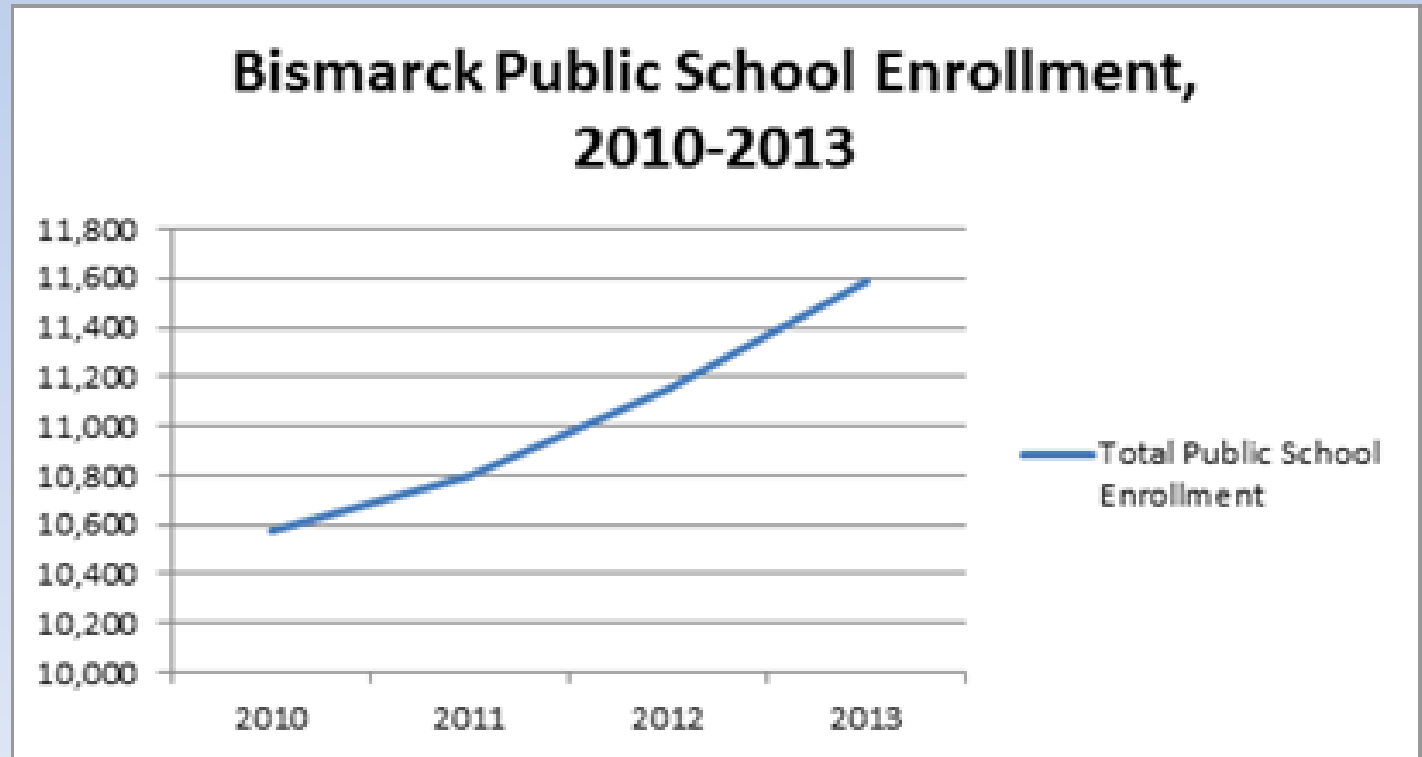
Total Dwelling Units 2010	New Dwelling Units 2011	Total Dwelling Units 2011	2010-2011 % Change	New Dwelling Units 2012	Total Dwelling Units 2012	2011-2012 % Change	2010-2012 Annual Rate of Change
47,833	893	48,726	1.87%	2,079	50,805	4.27%	3.11%

Total dwelling units 2010 based on the 2010 US Census Bureau data. New dwelling unit data obtained from the Cities of Bismarck and Mandan, and Morton County Building Inspections Divisions

Summary of Recent Growth Trends

SCHOOL ENROLLMENT

School Enrollment for Bismarck Public Schools

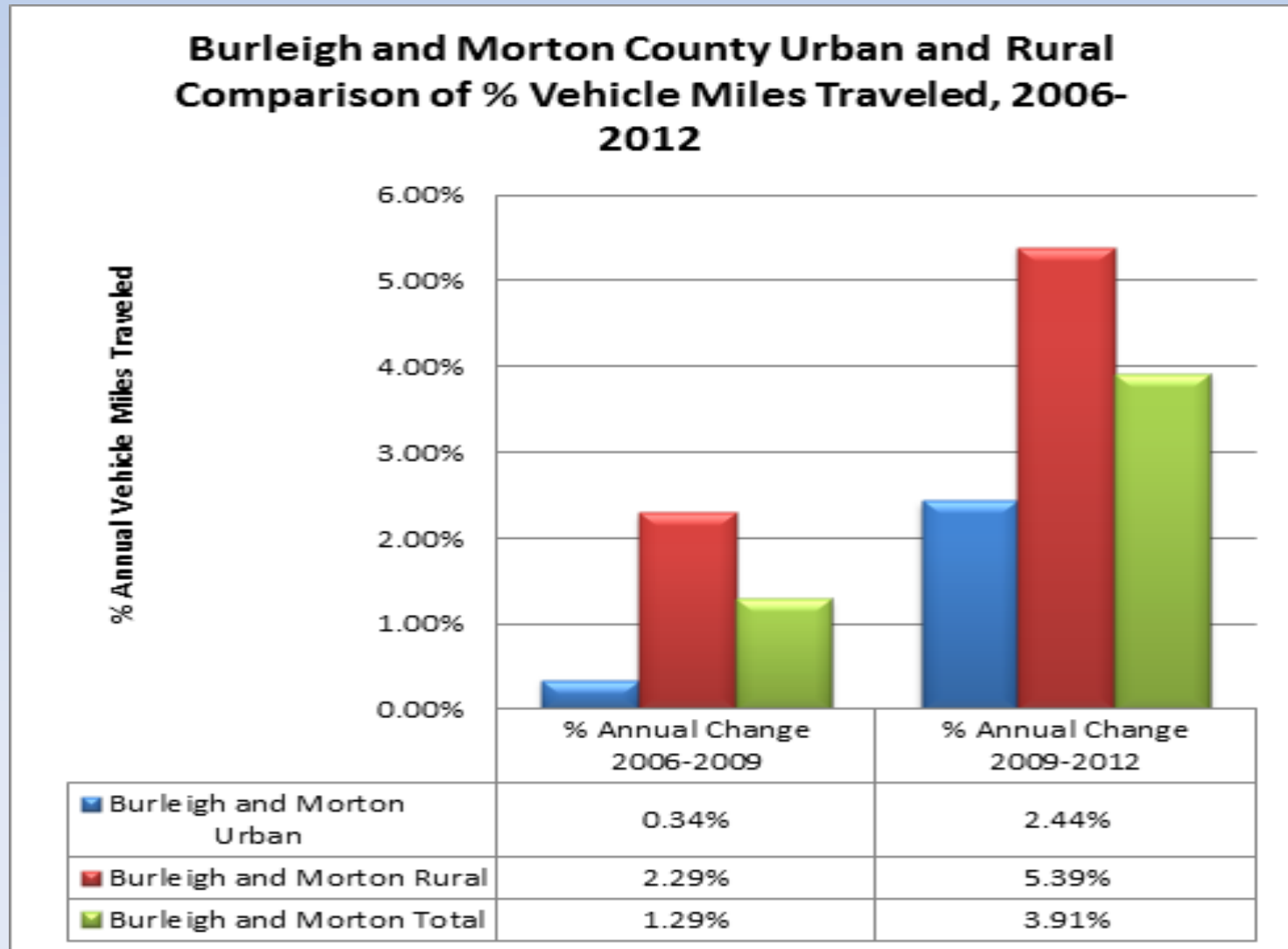


	2010	2011	2010-2011	2012	2011-2012	2013	2012-2013	2010-2013	Annual Rate of Change 2010-2013
Total Public School Enrollment	10,572	10,799	2.15%	11,150	3.25%	11,587	3.92%	9.60%	3.20%

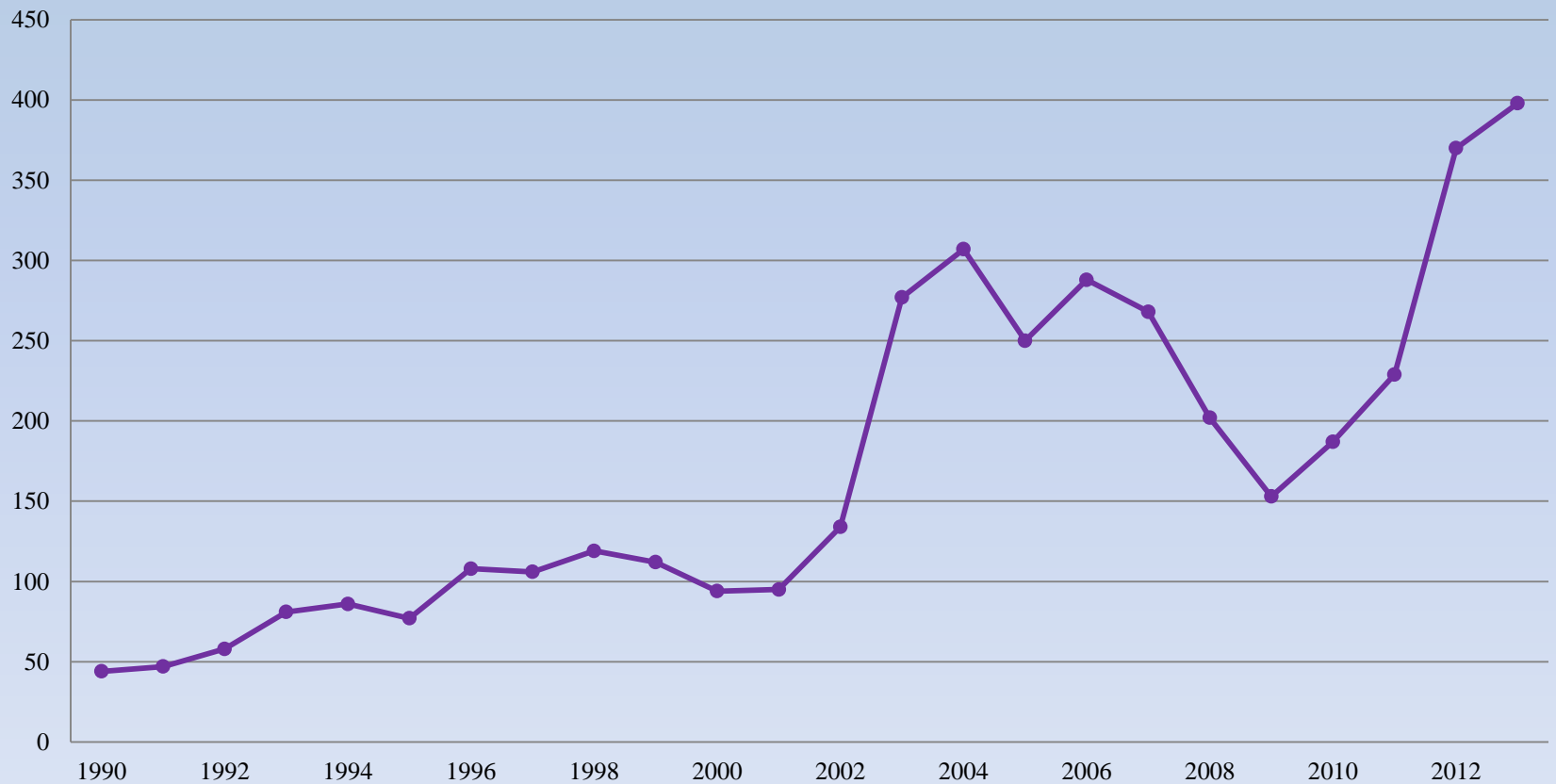
Based on school enrollment data obtained from the Bismarck and Mandan School Districts (2010, 2011, 2012, and 2013)

Summary of Recent Growth Trends

VEHICLE MILES TRAVELED

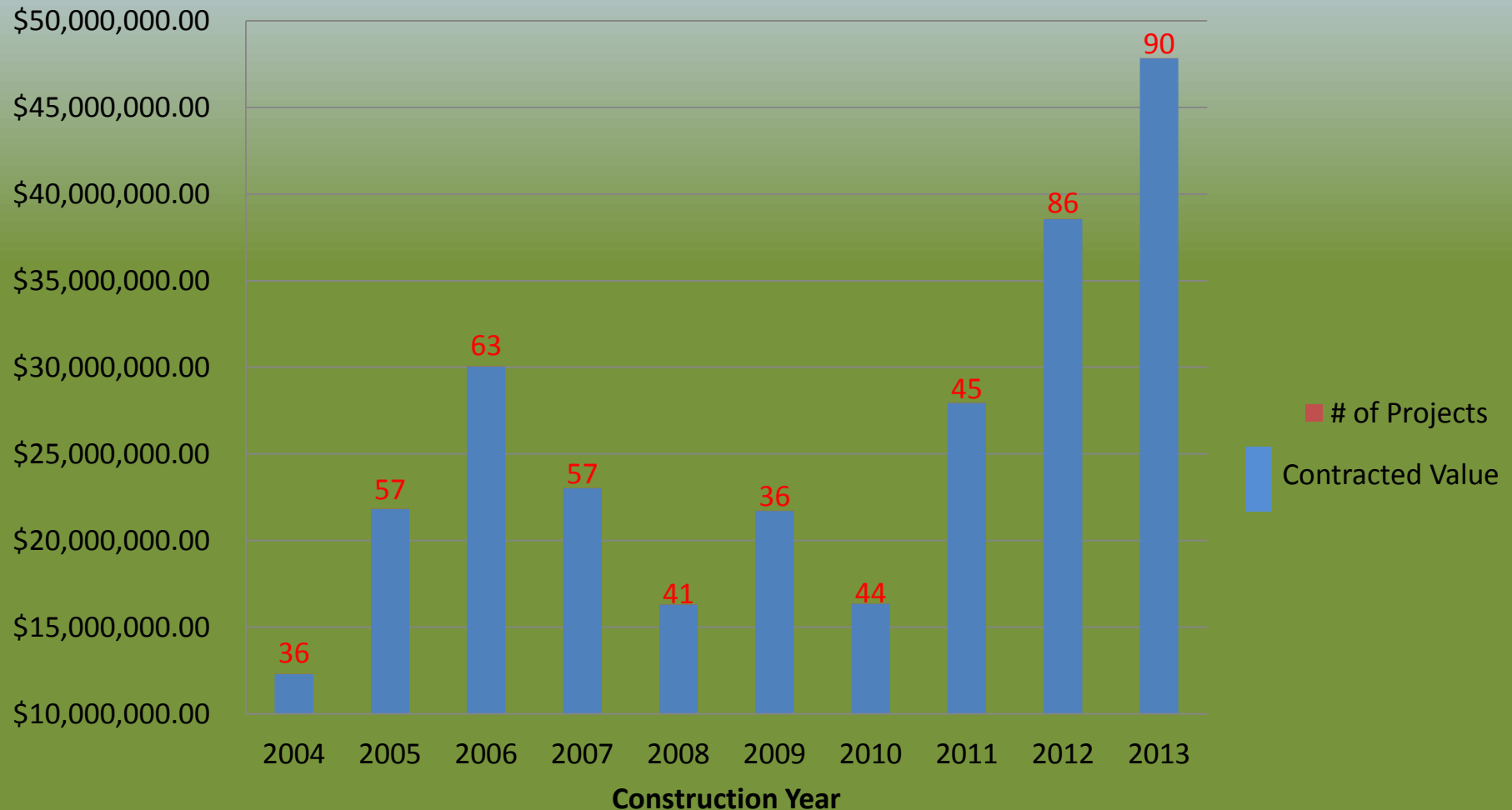


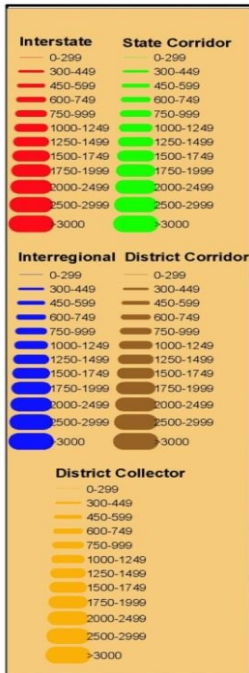
Land Use/Development Applications



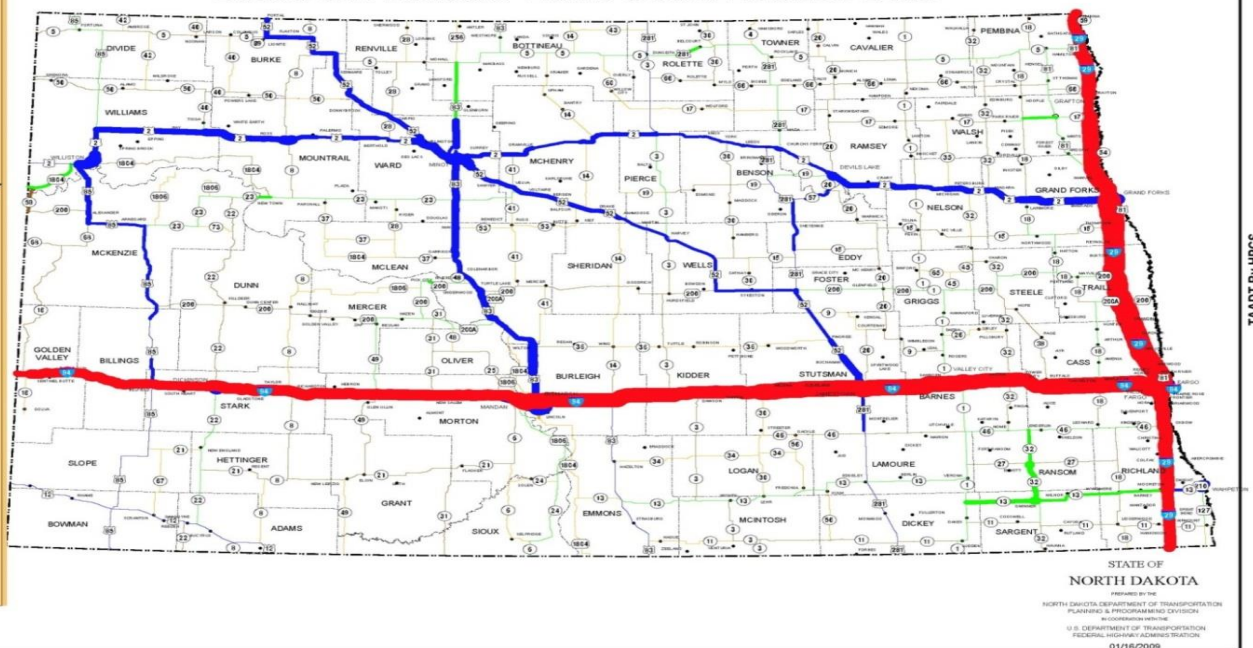
City of Bismarck community Development Department

City Infrastructure Construction Contracts





Average Annual Daily Truck Traffic (Published 2008) Based on Available Traffic Count Rotation Data



Average Annual Daily Truck Traffic (Published 2013) Based on Available Traffic Count Rotation Data

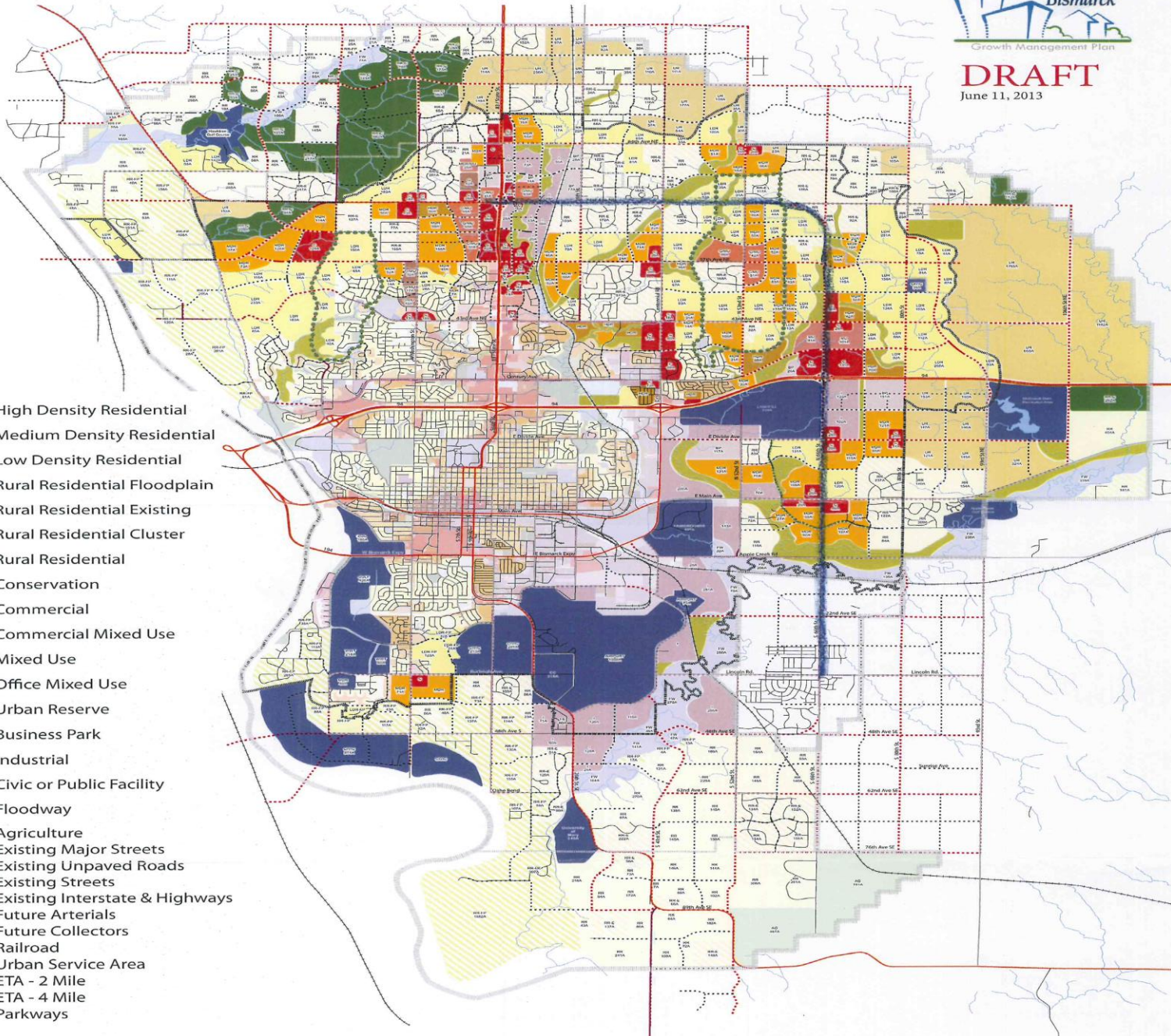


Bismarck Future Land Use Plan



DRAFT
June 11, 2013

- High Density Residential
- Medium Density Residential
- Low Density Residential
- Rural Residential Floodplain
- Rural Residential Existing
- Rural Residential Cluster
- Rural Residential
- Conservation
- Commercial
- Commercial Mixed Use
- Mixed Use
- Office Mixed Use
- Urban Reserve
- Business Park
- Industrial
- Civic or Public Facility
- Floodway
- Agriculture
- Existing Major Streets
- Existing Unpaved Roads
- Existing Streets
- Existing Interstate & Highways
- Future Arterials
- Future Collectors
- Railroad
- Urban Service Area
- ETA - 2 Mile
- ETA - 4 Mile
- Parkways



State Projects Underway

Recent Truck Reliever Routes/Bypass Projects

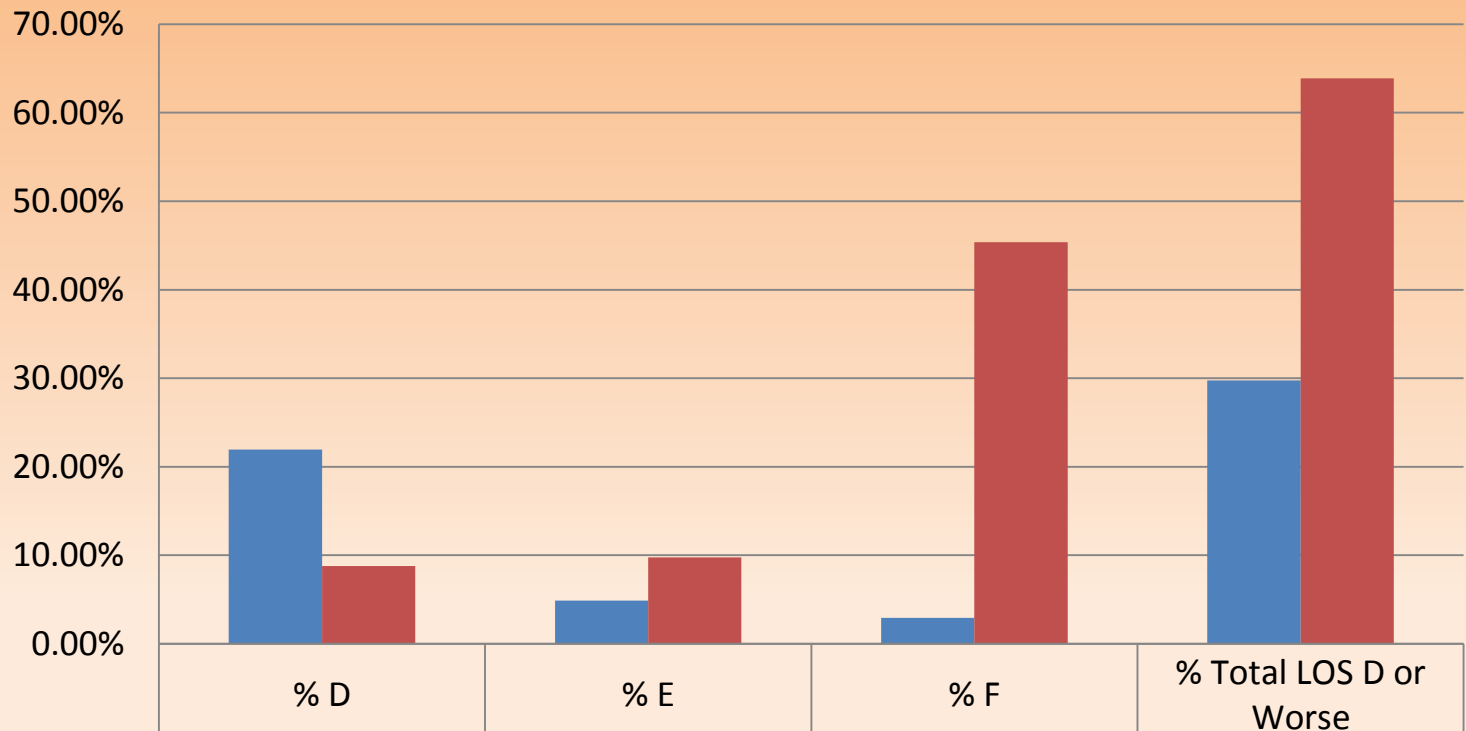
- Williston Bypass
- Watford City Southwest Bypass
- Watford City Southeast Bypass
- Dickinson Bypass Phase 1
- New Town Bypass
- Alexander Bypass
- Killdeer Bypass



Watford City US 85 Southwest Bypass ground breaking

Levels of Service at Major Intersections

Percent of Turning/Through Movements within the Bismarck-Mandan MPO I-94 Corridor Study Area with Existing/Projected Level of Service D or Worse for P.M. Peak Hour, 2012 and 2040



Bismarck P.M. 2012	21.95%	4.88%	2.93%	29.76%
Bismarck P.M. 2040	8.78%	9.76%	45.37%	63.90%

EXISTING CONDITIONS AND RECENT TRENDS

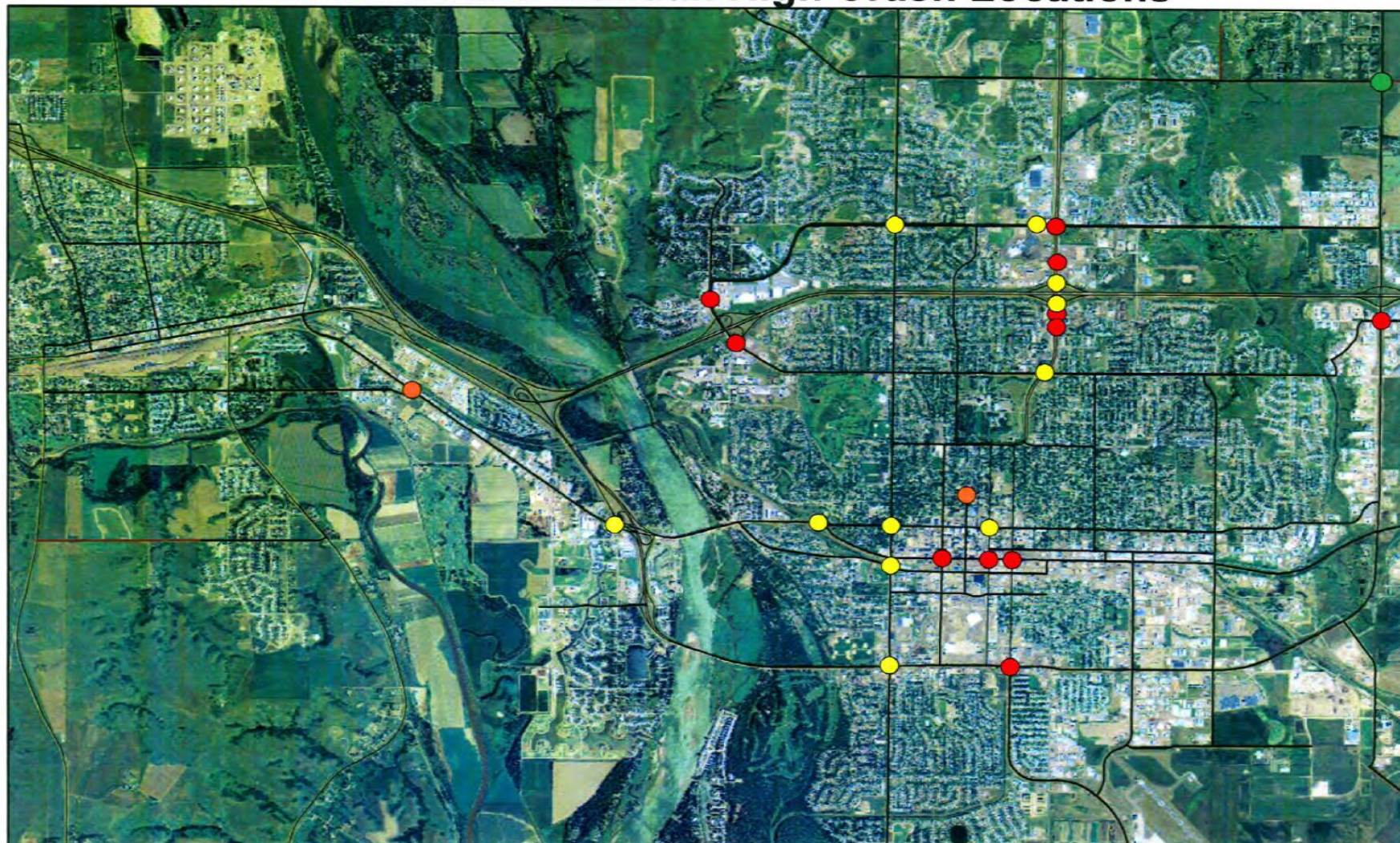
High Frequency Crash Locations

SAFETY

Ranking of 3 Year High Crash Locations in Bismarck, ND 2009-2011

City	Location	Statewide Rank
Bismarck	Divide Ave & Schafer St. South Ramps	1
Bismarck	State St. & Century Ave	2
Bismarck	State St. & Interstate Ave	3
Bismarck	Main Ave & 7 th St	7
Bismarck	State Street & Capitol Ave	8
Bismarck	Bismarck Expressway & Divide Ave	10
Bismarck	State St. & Divide Ave	11
Bismarck	Washington St. & Rosser Ave	13
Bismarck	State St & I-94 North Ramp	14
Bismarck	State St & Interchange Ave Area	15
Bismarck	Bismarck Expressway & 9 th St./University Dr	16
Bismarck	Main Ave & 3 rd St	18
Bismarck	Century Ave & Washington St	19
Bismarck	State St. & I-94 South Ramp	20

Bismarck and Mandan High Crash Locations



Urban 1yr Crash Data = 1/1/11 to 12/31/11

Urban 3yr Crash Data = 1/1/09 to 12/31/11

Listing

- Both 1yr and 3yr
- Urban 1yr Only
- Urban 3yr Only
- 5yr Rural Intersections

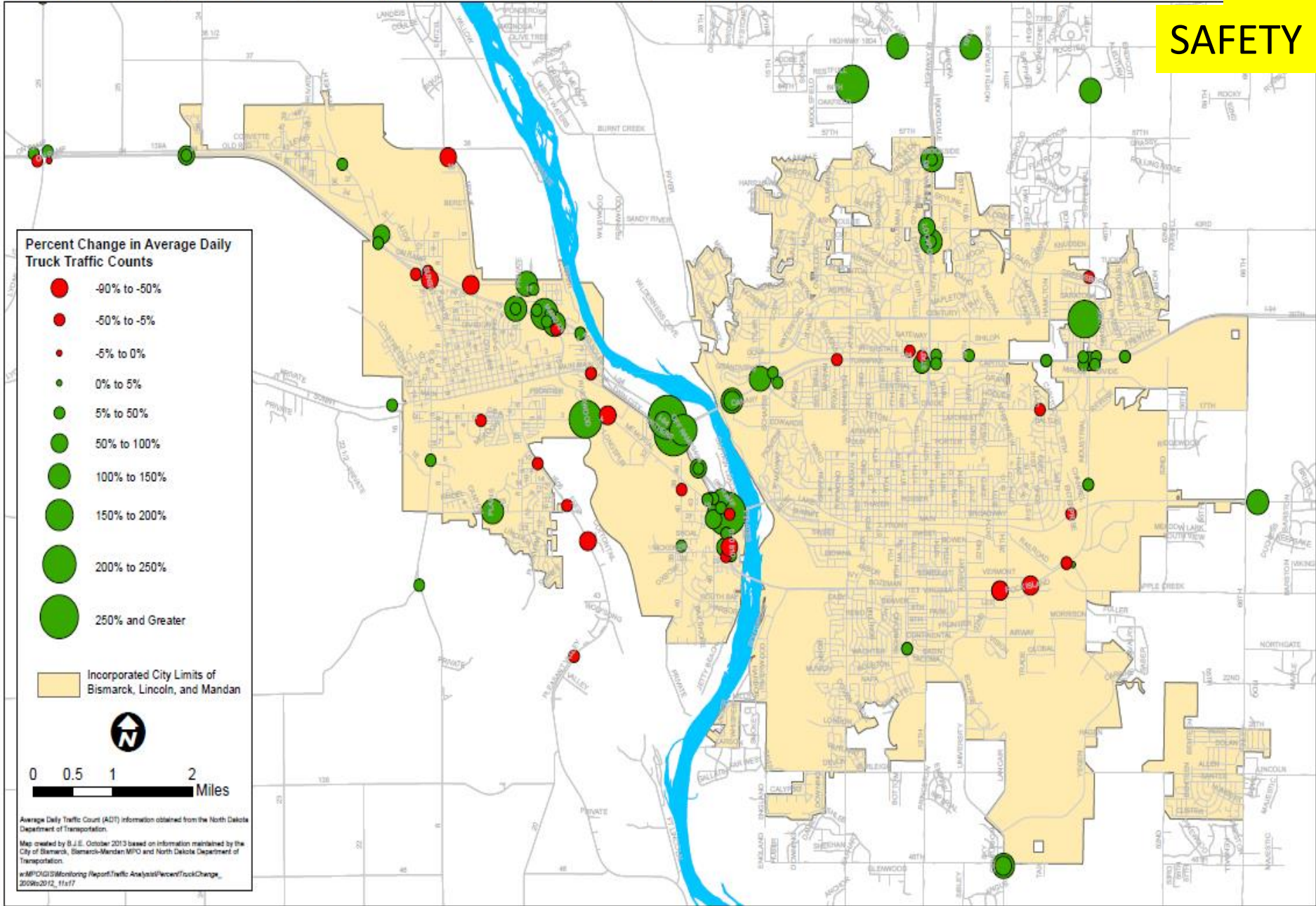


PREPARED BY THE
North Dakota Department of Transportation
Programming Division
Traffic Operations Section
October 2012

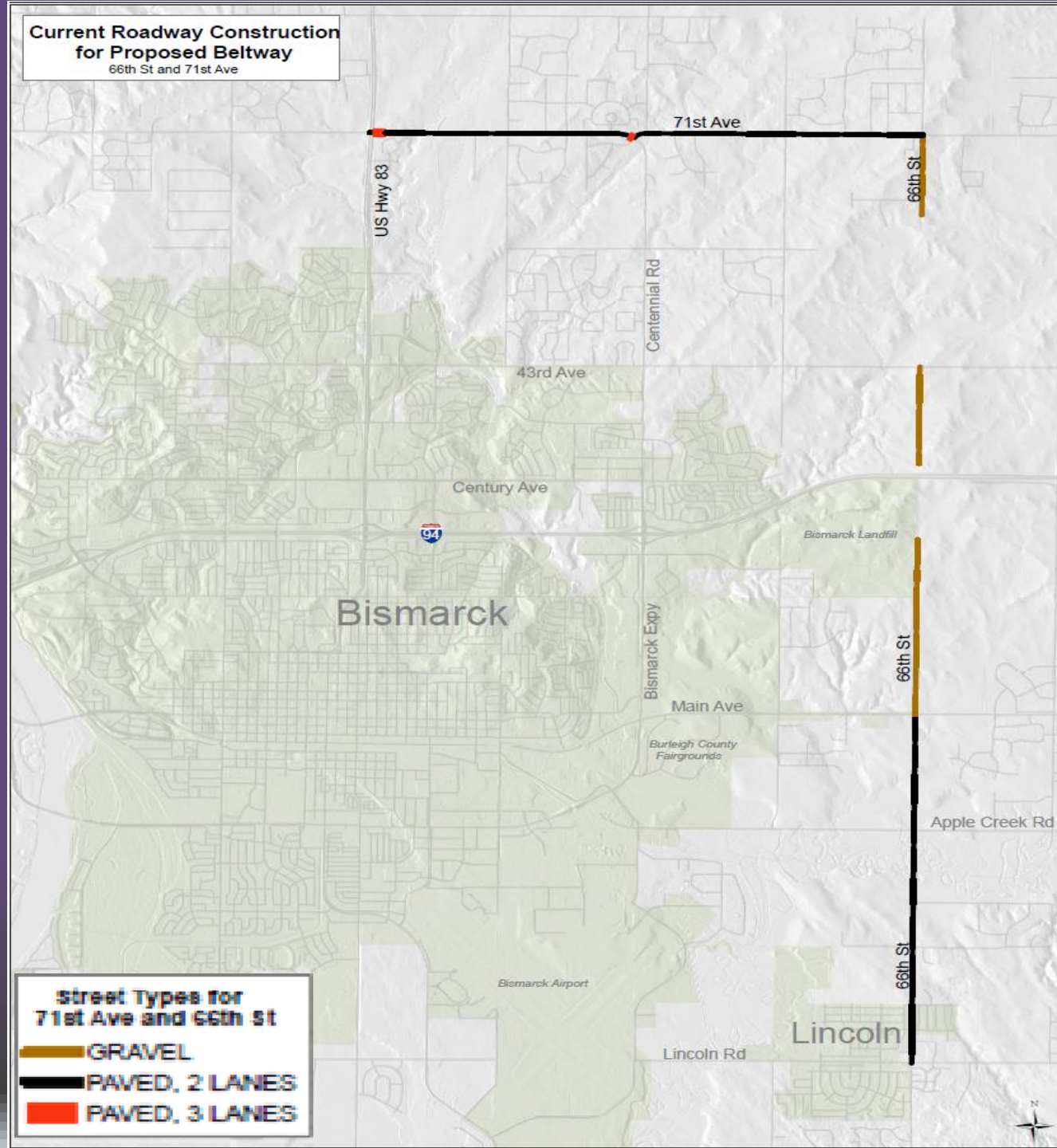
23 USC 409 Documents
NDDOT Reserves All Objections

Percent Change of Average Daily Truck Traffic Counts (ADT) from 2009-2012, Bismarck-Mandan Area

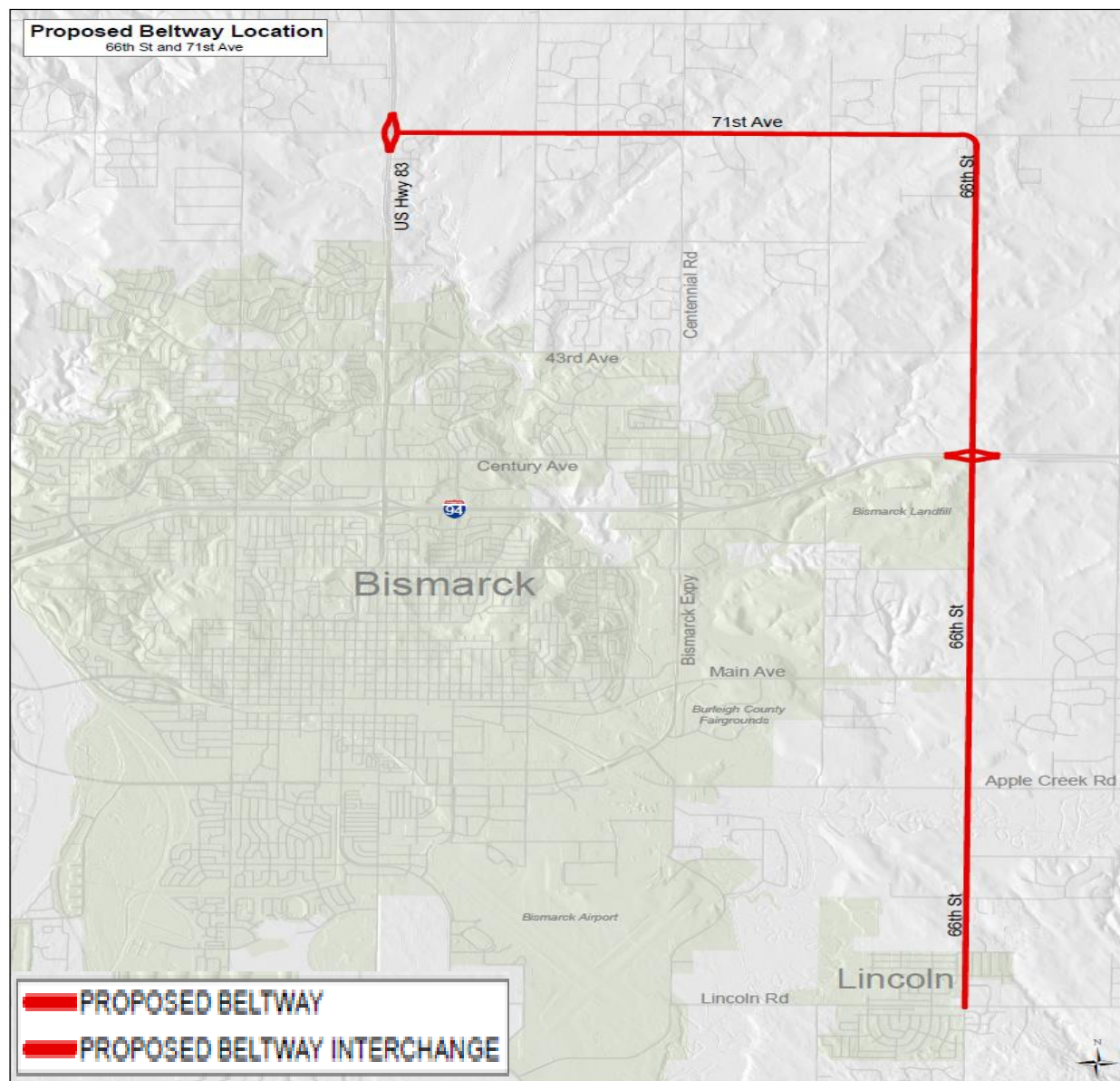
SAFETY



Project map



Any questions ?



Level of congestion on present routes makes construction of a bypass a very great need and a high priority

Image references not previously cited

COVER: http://www.aecom.com/deployedfiles/Internet/Geographies/Middle%20East/Transportation%20Project%20Images/ruwais_mainimg.jpg

SAFETY: <http://www.streetsblog.org/2013/02/28/trucker-kills-7-year-old-in-east-harlem-nypd-and-media-eye-crossing-guard/>

BISMARCK FUTURE LAND USE PLAN: URS/RDG/SRF

TRUCKS BESIDE BOOTH: <http://www.wday.com/media/story/png/2012/10/23/trucks2.png>

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